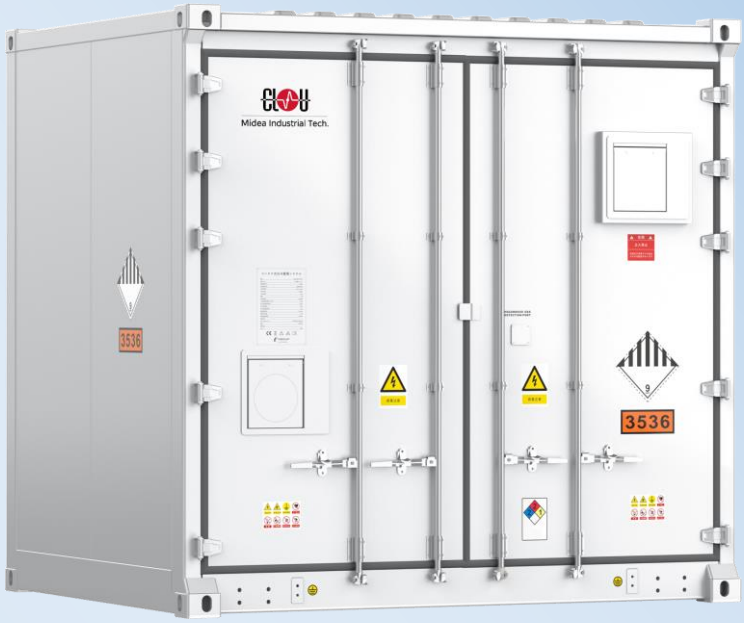
Aqua C2.5S-2089-500-4h

Liquid-Cooled Energy Storage System



* The illustration is for reference only. The actual product's appearance might vary depending on the configurations.

Optimal Costs

- 10-foot design, weighing less than 20 tons, enabling easy transportation and deployment in confined spaces
- Integrated AC/DC bi-directional inverter, reducing commissioning time

Ultimate Security

- Multi-level electrical protection, fire protection, arc flash analysis, and collaborative protection
- Intelligent management of battery health for early warning of faulty batteries
- Compliant with IEEE 693 high seismic level

Capacity Enhancement

- Modular design reduces failure impacts and improves system uptime.
- Active balancing technology and bio-inspired solutions enhance battery lifespan and system discharge capacity.

Convenient O&M

- Active balancing technology reduces O&M costs for energy storage stations.
- Rapid state detection and fault recording achieve rapid positioning and analysis of system faults.

Model	Aqua C2.5S-2089-500-4h
DC-side parameters	
Cell type	LFP 3.2 V/314 Ah
Battery configuration	5P416S
Nominal energy	2089 kWh
Battery voltage range	1123.2–1497.6 V
Nominal battery voltage	1331.2 V
AC-side parameters	
Nominal power	500 kVA
Maximum THD of current	< 3% (at nominal power)
DC component	< 0.5%
Nominal voltage	690 V
AC voltage range	621–759 V
Nominal frequency	50/60 Hz
Rated current	418.4 A × 3 phases (capable of continuous operation at 110% of rated current)
Power factor	≥ 0.99 (at nominal power)
Power factor range	–1 to +1
System parameters	
Operating ambient temperature range	–30°C to +50°C (> 45°C derating)
Relative humidity	≤ 100% RH (non-condensing)
Maximum operating altitude	2000 m
Ingress protection (IP) rating	IP55
Cooling method	Intelligent liquid cooling
Noise	≤ 75 dB (@ 1 m, ambient temperature 35℃)
Weight	≤ 20000 kg
Anti-corrosion degree	● C4 ● C5 (optional)
Seismic level	IEEE 693 high seismic level qualification
Snow load	1.44 kPa
Wind load	57.7 m/s
Dimension (W × D × H)	2991 mm × 2438 mm × 2896 mm
Fire suppression system	Fire control alarm panel, smoke and heat detectors, alarm bell, horn strobe, gas detector, ventilation system (compliant with NFPA 69), dry pipes with sprinklers, aerosol
Communication interface	Ethernet
Communication protocol	Modbus-TCP, IEC 104, IEC 61850
Standard compliance	IEC 62933-5-2, IEC 61000, IEC 62619, IEC 63056, IEC 62477-1, JETGR0004-1-2.1, JETGR0005-1-1.0, JEM_1505, JEAC9701-2024